

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
RENTON, WASHINGTON 98057-3356

In the matter of the petition of

Cessna Aircraft Company

for an exemption from § 25.1447(c)(1) of
Title 14, Code of Federal Regulations

Regulatory Docket No. FAA-2010-0290

GRANT OF EXEMPTION

By letter L390-10-0656, dated March 1, 2010, Ms. Donna DeBuhr on behalf of Mr. Carlos Ayala, Type Certification Organization Designation Authorization Administrator, Cessna Aircraft Company, One Cessna Boulevard, P.O. Box 7704, Wichita, Kansas, 67277-7704, petitioned for an exemption from § 25.1447(c)(1) of Title 14, Code of Federal Regulations (14 CFR). The proposed exemption, if granted, would permit relief from the requirement that oxygen dispensing units be automatically presented to occupants before the cabin pressure altitude exceeds 15,000 feet on Cessna Model 680 airplanes.

The petitioner requests relief from the following regulations:

Section 25.1447(c)(1) requires, in part, that an oxygen dispensing unit must be connected to oxygen supply terminals immediately available to each occupant, wherever seated. If certification for operation above 30,000 feet is requested, the dispensing units providing the required oxygen flow must be automatically presented to the occupants before the cabin pressure altitude exceeds 15,000 feet, and the crew must be provided with a manual means of making the dispensing units immediately available in the event of failure of the automatic system.

The petitioner supports its request with the following:

The following material is quoted from Cessna's petition.

"A new airport is under construction in Nagqu, China in the northwest portion of the Qinghai-Tibet Plateau. This airport is scheduled to be completed in 2010 and has a

landing field elevation (LFE) of 14,639 feet above sea level. The customer has requested the aircraft be capable of operations at this and other airports with field elevation above 14,000 feet (with anticipated barometric pressure variations) up to 15,000 feet. In order for the Model 680 Sovereign to provide the additional capability for landing at airports up to 15,000 feet pressure altitude, the Cabin Pressure Control System (CPCS) and Passenger Oxygen Control System (POCS) will be modified to allow the cabin internal pressure altitude to reach as high as 15,150 +/- 150 feet during ">14K" operations. Manual control of the oxygen system is not affected and can be activated at any time the crew deems necessary.

Public Interest Statement:

Cessna's leadership position in the global business jet market is due to the efforts of its nearly eight thousand employees in manufacturing plants, completion centers, and service centers across the United States. This further includes the many vendors located across the United States that provide the numerous aircraft pieces such as avionics, oxygen components, as well as the modified CPCS components that would be used for the aircraft to operate at this high elevation. Cessna competes for new business all over the world. Although the current economy has slowed Cessna is striving hard to gain international markets for its business jets. This increased market directly affects the viability of Cessna and would aid in the stabilization of the job market as well as the growth of the American economy, which is directly in the interest of the public.

Supporting Information:

The oxygen mask presentation at 15,750 +/- 250 feet is only selected when a ">14K" switch is activated by the pilot. An indication light indicating that the aircraft is in ">14K" mode is also provided. This feature assists in limiting use of this mode to conditions when the airplane will operate from airfields with an elevation greater than 14,000 feet. The activation point for the cabin altitude warning is also shifted with the same switch to avoid nuisance alerts when operating to and from airports at an altitude greater than 14,000 feet.

Appropriate procedures will be provided in the Airplane Flight Manual to address proper operation of the ">14K" switch function. These features will have the flight crew select this function when descending to land at an airfield elevation greater than 14,000 feet and to reselect the ">14K" switch back to the "Normal" mode when climbing after takeoff from an airport with a field elevation greater than 14,000 feet. The procedure will minimize the time the aircraft is in the elevated altitude to that required to safely land and/or takeoff from airports with a field elevation greater than 14,000 feet."

Federal Register publication

A summary of the petition was not published in the Federal Register. The FAA determined that good cause existed for waiving the publication requirement because this exemption would not set a precedent.

The FAA's analysis

The FAA considers that granting the petition is in the public interest for the reasons stated by the petitioner and because this exemption is effectively identical to previously granted exemptions to § 25.1447(c)(1).

The petitioner requests an exemption for Cessna Model 680 airplanes and seeks relief from the requirement of § 25.1447(c)(1), which states that oxygen dispensing units must be automatically presented to occupants before the cabin pressure altitude reaches 15,000 feet. A requirement for automatic presentation of masks for airplanes certificated to operate above 30,000 feet originated in § 4b.651(d)(3)(i) of the Civil Aviation Regulations (CAR) and was carried over as § 25.1447(c)(1) when part 25 was codified. The CAR requirement did not specify the maximum cabin altitude pressure allowed prior to presentation. The requirement that the oxygen dispensing units be automatically presented before the cabin pressure altitude reaches 15,000 feet was added at Amendment 25-41, effective September 1, 1977.

For operation of the Cessna Model 680 airplane into and out of an airport with a landing field above 14,000 feet, the flightcrew must select the ">14K" position on the airport elevation selection switch. This results in automatic deployment of the passenger oxygen masks when the cabin pressure altitude is 15,750 ±250 feet. This feature is necessary to reduce the occurrence of inadvertent deployment of oxygen masks.

The FAA's decision

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. §§ 40113 and 44701, delegated to me by the Administrator, Cessna Aircraft Company is granted an exemption, for Cessna Model 680 airplanes, from the requirement of § 25.1447(c)(1) to automatically present oxygen dispensing units to occupants before the cabin pressure altitude exceeds 15,000 feet. Instead, this grant of exemption will permit oxygen dispensing units to be automatically presented at cabin pressure altitudes of 15,750 \pm 250 feet when operating into and out of airports at altitudes above 14,000 feet.

Issued in Renton, Washington, on JUN 30 2010



Todd Dixon
Acting Manager, Transport Airplane Directorate
Aircraft Certification Service